

Appl. No. 09/920,783
Amdt. Dated 02/25/2005
Reply to Office Action of November 30, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-3. (Cancelled)

4. (Currently Amended) A The method of claim 3 wherein for adjusting a reference frequency in an electronic device comprising:
determining if a transmission frequency is within a capture range; and
modifying the reference frequency if the transmission frequency is not within the capture range; and
setting the reference frequency to an initial value, the initial value of the reference frequency is a previous reference frequency used by the electronic device and the previous reference frequency is a last reference frequency used by the electronic device prior to a last power down of the electronic device.

5. (Currently Amended) The method of claim 4 wherein the initial value of the reference frequency is a predetermined reference frequency.

6. (Currently Amended) The method of claim 4 further comprising allowing the reference frequency to stabilize.

7. (Currently Amended) The method of claim 4 further comprising performing a search of a pilot channel.

8. (Original) The method of claim 7 further comprising generating a search result.

9. (Original) The method of claim 7 wherein the pilot channel is part of a spread spectrum signal.

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7-10. (Original) The method of claim 8 further comprising assigning a code sequence timing to a demodulator using the search result.

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8 11. (Original) The method of claim 10 wherein the code sequence timing is a pseudo-noise sequence timing.

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9 12. (Original) The method of claim 10 further comprising starting a lock timer.

10 13. (Currently Amended) A The method of claim 12 wherein, for adjusting a reference frequency in an electronic device comprising:
determining if a transmission frequency is within a capture range; and
modifying the reference frequency if the transmission frequency is not within the capture range;
setting the reference frequency to an initial value, the initial value of the reference frequency is a previous reference frequency used by the electronic device; and
performing a search of a pilot channel;
generating a search result;
assigning a code sequence timing to a demodulator using the search result;
starting a timer lock; and
if the demodulator does not lock before the lock timer expires;
 modifying the reference frequency,[[;]]
 allowing the reference frequency to become stabilized,[[;]]
 performing another search of the pilot channel,[[;]] and
 generating another search result.

11 14. (Currently Amended) ¹⁰The method of claim 13 wherein modifying the ~~clock~~ reference frequency comprises increasing the clock frequency by an incremental amount.

12 15. (Original) ¹⁰The method of claim 13 wherein modifying the clock frequency comprises decreasing the clock frequency by an incremental amount.

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4, 6, 16: (Currently Amended) A The method of claim 12 wherein, for adjusting a reference frequency in an electronic device comprising:

determining if a transmission frequency is within a capture range; and
modifying the reference frequency if the transmission frequency is not within the capture range;

setting the reference frequency to an initial value, the initial value of the reference frequency is a previous reference frequency used by the electronic device; and

performing a search of a pilot channel;

generating a search result;

assigning a code sequence timing to a demodulator using the search result;

starting a timer lock; and

if the demodulator does lock before the lock timer expires, enabling automatic frequency control.

15 17: (Original) The method of claim ¹⁴~~16~~ further comprising starting an unlock timer.

13 18: (Original) The method of claim ¹⁴~~14~~ further comprising, if the demodulator does not remain locked when the unlock timer expires:

reassigning the code sequence timing to the demodulator; and

restarting the lock timer.

16 19: (Original) The method of claim ¹⁵~~17~~ further comprising, if the demodulator does remain locked when the lock timer expires, decoding a CDMA signal.

20. (Cancelled).

17 21: (Currently Amended) A The system of claim 20 wherein comprising:
a clock, and

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a demodulator coupled to the clock to provide a negative feedback signal to the clock such that a reference frequency generated by the clock is modified, the demodulator comprises[[:]]

- a correlator;
- a code sequence generator;
- a lock/unlock timer; and
- a frequency error detector.

- 18 22. (Original) The system of claim 21¹⁷ wherein the code sequence generator is a pseudo-noise sequence generator.
- 19 23. (Original) The system of claim 21¹⁷ wherein lock/unlock timer provides the criteria to determine whether to modify a reference frequency generated by the clock.
- 20 24. (Original) The system of claim 21¹⁷ wherein the correlator determines an in-phase correlator output and a quadrature-phase correlator output.
- 21 25. (Original) The system of claim 24²⁰ wherein the correlator provides the in-phase correlator output and the quadrature-phase correlator output to the frequency error detector.
- 22 26. (Original) The system of claim 21¹⁷ wherein the frequency error detection unit: determines a frequency error between the clock and a base station; and generates the negative feedback signal.
- 23 27. (Original) The system of claim 26²² wherein the frequency error detection unit provides the negative feedback signal to the clock.
- 24 28. (Currently Amended) The system of claim 21¹⁷ further comprising a searcher.
- 25 29. (Original) The system of claim 28²⁴ wherein the searcher; determines a code sequence timing; and

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provides the code sequence timing to the demodulator.

²⁶ 30. (Original) The system of claim ²⁵ 29 wherein the code sequence timing is a pseudo-noise sequence timing.

¹⁷ 31. (Currently Amended) The system of claim ¹⁷ ~~20-21~~ wherein the clock is a voltage-controlled temperature-compensated crystal oscillator.